

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:
image reading means for reading a document image
to generate an image signal;
- 5 image forming means for forming a copying image
corresponding to the image signal supplied from the
image reading means, on an image receiving medium;
- 10 feeding means for feeding the image receiving
medium to the image forming means;
- 15 magnification setting means for setting a reading
magnification when the document image is read by the
image reading means; and
timing control means for controlling at least one
of timing of supply of the image signal from the image
reading means to the image forming means and timing of
feed of the image receiving medium from the feeding
means to the image forming means such that a size of
a margin between a leading edge of the image receiving
medium and that of the copying image formed on the
image receiving medium is fixed irrespective of the
reading magnification.
- 20 2. An image forming apparatus comprising:
image reading means for reading a document image
to generate an image signal;
- 25 image forming means for forming a copying image
corresponding to the image signal supplied from the
image reading means, on an image receiving medium;

feeding means for feeding the image receiving medium to the image forming means;

magnification setting means for setting a reading magnification when the document image is read by the image reading means; and

5 timing control means for controlling timing of supply of the image signal from the image reading means to the image forming means such that a size of a margin between a leading edge of the image receiving medium and that of the copying image formed on the image receiving medium is fixed irrespective of the reading magnification.

10 3. An image forming apparatus comprising:
image reading means for reading a document image
15 to generate an image signal;

image forming means for forming a copying image corresponding to the image signal supplied from the image reading means, on image receiving medium;

20 feeding means for feeding the image receiving medium to the image forming means;

magnification setting means for setting a reading magnification when the document image is read by the image reading means; and

25 timing control means for controlling timing of feed of the image receiving medium from the feeding means to the image forming means such that a size of a margin between a leading edge of the image receiving

medium and that of the copying image formed on the image receiving medium is fixed irrespective of the reading magnification.

4. An image forming system comprising a scanner for scanning an image of a document to output an image signal and a printer for copying the image onto an image receiving medium in response to the image signal, wherein:

10 the system comprises scanning magnification setting means for setting a scanning magnification when the scanner scans the document;

15 the scanner includes an image sensor for outputting a signal generated by optically scanning the document in a main scanning direction and a sub-scanning direction perpendicular to the main scanning direction;

20 the printer includes sub-scanning start signal generation means for generating a sub-scanning start signal for causing the scanner to start scanning the document in the sub-scanning direction; and

25 the system is configured so as to change timing at which the sub-scanning start signal generation means generates the sub-scanning start signal in accordance with the scanning magnification set by the scanning magnification setting means.

5. The image forming system according to claim 4, wherein the timing is changed such that a size of a

margin between a leading edge of the image receiving medium and that of the image copied onto the image receiving medium is fixed irrespective of the scanning magnification.

5 6. An image forming system comprising a scanner for scanning an image of a document to output an image signal and a printer for copying the image onto an image receiving medium in response to the image signal, wherein:

10 the system comprises scanning magnification setting means for setting a scanning magnification when the scanner scans the document;

15 the scanner includes a delay memory for temporarily storing the image signal and then outputting the image signal;

the printer includes feeding means for feeding the image receiving medium; and

20 the system is configured so as to change relative timing between timing at which the image signal is output from the delay memory and timing at which the image receiving medium is fed by the feeding means in accordance with the scanning magnification set by the scanning magnification setting means.

25 7. The image forming system according to claim 6, wherein the relative timing is changed such that a size of a margin between a leading edge of the image receiving medium and that of the image copied onto the

image receiving medium is fixed irrespective of the scanning magnification.

8. A color image forming apparatus comprising:
optical means for reading a color image of
5 a document;

an image sensor for scanning the color image read by the optical means in a main scanning direction and a sub-scanning direction perpendicular to the main scanning direction and outputting image signals of
10 different colors from the color image, the image sensor including a plurality of line sensors arranged at given intervals in the sub-scanning direction;

15 timing correction means for correcting a difference in timing between the image signals of different colors which is caused by the given intervals in the sub-scanning direction of the plurality of line sensors;

20 copying means for copying the color image of the document onto an image receiving medium in response to the image signals of different colors whose timing difference is corrected by the timing correction means;

reading magnification setting means for setting a reading magnification of the document; and

25 timing control means for changing at least one of operation timing of the image sensor and that of the copying means based on a specific reading magnification set by the reading magnification setting means.

9. The color image forming apparatus according to
claim 8, wherein the image sensor includes three line
sensors having a number of photoelectric converting
elements arranged in the main scanning direction, and
5 the three line sensors are arranged in parallel at
regular intervals in the sub-scanning direction and
including a first primary-color line sensor, a second
primary-color line sensor, and a third primary-color
line sensor.

10 10. The color image forming apparatus according to
claim 9, wherein the timing correcting means includes
a first delay circuit for delaying a first-color image
signal sensed by the first primary-color line sensor by
a time period which is twice as long as each of the
15 regular intervals and a second delay circuit for
delaying a second-color image signal sensed by the
second primary-color line sensor by a time period
corresponding to each of the regular intervals.

11. The color image forming apparatus according to
20 claim 10, wherein the timing correcting means further
includes a delay circuit for simultaneously storing the
first-color image signal delayed by the first delay
circuit, the second-color image signal delayed by the
second delay circuit, and a third-color image signal
25 sensed by the third primary-color line sensor, and
simultaneously outputting the first-color image signal,
the second-color image signal, and the third-color

image signal after a lapse of a predetermined period of time.

12. An image forming method using a system including a scanner for scanning an image of a document to output an image signal, a printer for copying the image onto an image receiving medium in response to the image signal, and scanning magnification setting means for setting a scanning magnification when the scanner scans the document, the scanner including an image sensor for outputting a signal generated by optically scanning the document in a main scanning direction and a sub-scanning direction perpendicular to the main scanning direction, and the printer including sub-scanning start signal generation means for generating a sub-scanning start signal for causing the scanner to start scanning the document in the sub-scanning direction, the method comprising:

20 checking whether the scanning magnification is changed; and

25 varying timing at which the sub-scanning start signal is generated in accordance with the scanning magnification changed by the scanning magnification setting means.

13. The image forming method according to claim 12, wherein the timing is changed such that a size of a margin between a leading edge of the image receiving medium and that of the image copied onto the

image receiving medium is fixed irrespective a change in the scanning magnification.

14. An image forming method using a system including a scanner for scanning an image of a document to output an image signal, a printer for copying the image onto an image receiving medium in response to the image signal, and scanning magnification setting means for setting a scanning magnification when the scanner scans the document, the scanner including a delay memory for temporarily storing the image signal and then outputting the image signal, and the printer including feeding means for feeding the image receiving medium, the method comprising:

15 checking whether the scanning magnification is changed; and

20 varying relative timing between timing at which the image signal is output from the delay memory and timing at which the image receiving medium is fed by the feeding means in accordance with the scanning magnification changed by the scanning magnification setting means.

15. The image forming method according to claim 14, wherein the relative timing is changed such that a size of a margin between a leading edge of the image receiving medium and that of the image copied onto the image receiving medium is fixed irrespective a change in the scanning magnification.